

REMARKS

Reconsideration is respectfully requested in view of the above amendments and following remarks. Claims 2 and 12 are amended. Support for the amendments can be found at page 4, lines 20-21 but is not limited to this specific section. Claims 2, 3, 6-9 and 12-14 are pending. This Supplemental Amendment and Response is presented to clarify potential conflict between the dependent claims and independent claim 12 introduced in the Amendment of January 3, 2005. Entry and consideration of this response is respectfully requested.

Claim rejections - 35 U.S.C. § 103

Claims 2, 3, 6-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over SmithKline (WO 95/21944) in view of Hoifodt et al. (WO 95/24648) and either Zeng et al. or Kuranami et al. Applicants respectfully traverse the rejection.

The Examiner states that SmithKline discloses methods for conducting differential hybridization whereby genes differentially expresses in diseased tissue as compared with healthy/normal tissue are identified. The Examiner asserts that the level of mRNA expression is also determined in this process. The Examiner notes that SmithKline does not teach immunomagnetically isolating the cells such that nearly 100% specific target cells are obtained, nor do they teach taking their first and second tissues from the same individual.

The Examiner asserts that Hoifodt remedies SmithKline by disclosing the use of immunomagnetic methods to not only detect but to isolate target cells in a mixed population of cells. The Examiner also asserts either Zeng or Kuranami remedies SmithKline by teaching isolated cancerous tissue as well as normal tissue from the same individual in which the aspect of using cancerous and normal tissue samples meets the limitations of taking first and second tissues from the same individual.

Based on this, the Examiner asserts that it would have been obvious to one of skill in the art to combined the aspect of taking a first and second tissue samples from the same individual (Kuranami or Zeng) and to have isolated specific target cells from the first and second tissue samples as disclosed by Hoifodt with the method of SmithKline. Applicants respectfully disagree.

Claim 12 is directed to a method for identifying genes differentially expressed between malignant cells isolated from different tissues from the same individual. Malignant target cells are detected in a first tissue and a second tissue from the same individual. Levels of mRNA

expression are then determined and compared within each of the tissue cell targets. The present invention is aimed at determining gene sequences in cancer cells, which may have a differential expression pattern because they grow in different tissues. Thus, one use of the present invention is to identify one or more genes showing a clear difference in expression in malignant cells isolated from a metastatic tumor in a lymph node, for example, as compared to malignant cells isolated from blood/bone marrow or lung or liver metastatic tumors.

The combination of cited references fails to teach all the limitations of the claims as required for a prima facie showing of obviousness. There is no teaching or suggestion in any of the cited prior art regarding comparison of two different, isolated sources of malignant cells within an individual. None of the references, neither individually nor taken together, teach or suggest targeting malignant cells from different tissues within an individual, separately obtaining nearly 100% specific target cells, and determining differential mRNA expression between those malignant cells.

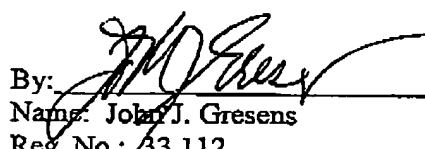
Therefore none of the cited references, alone or in combination, render claim 12 obvious. Withdrawal of the rejection is respectfully requested.

Claims 2, 3, 6-9, 13 and 14 depend from claim 12. For the reasons discussed above for claim 12, withdrawal of the rejection is respectfully requested.

In view of the above amendments and remarks, favorable reconsideration in the form of a Notice of Allowance is requested. Any questions or concerns regarding this communication can be directed to the undersigned attorney, John J. Gresens, Reg. No. 33,112, at (612)371.5265.

Respectfully submitted,
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Date: March 10, 2005

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